

REMARKS

Claims 8, 10, 12, 14, 17, 18, 20, 22, 24, 26, 28, and 30-49 are pending in this application. By this Amendment, claims 8, 14, 17, 20, 22, 24, 26, 28, and 30 are amended and claim 11 is canceled. Support for the amendments may be found, for example, in the original claims. No new matter is added.

I. Rejections Under 35 U.S.C. §103

A. Yui in view of Koitabashi '185

The Office Action rejects claims 8, 10, 11, 14, 20, 22, 26, 28, 31-35, 38-41, and 44-47 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 5,462,590 to Yui et al. (Yui) in view of U.S. Patent Application Publication No. 2002/0044185 to Koitabashi et al. (Koitabashi '185). By this Amendment, claim 11 is canceled, and thus the rejection is moot as to that claim. As to the remaining claims, Applicant respectfully traverses the rejection.

As to claim 8, the Office Action asserts that Yui teaches an ink jet ink composition comprising: water; a colorant; a water-soluble organic solvent; and at least one amine compound represented by the claimed formula (2). However, the Office Action recognizes that Yui does not disclose that the amine compound is in a range of 13-30% by mass, or that the colorant is a self-dispersing pigment. Therefore, the Office Action applies the teaching of Koitabashi '185 to address the discrepancies of Yui. The Office Action asserts that Koitabashi '185 teaches the content of the amine compound is in a range of 13-30% by mass and that the colorant is a self-dispersing pigment. The Office Action makes similar assertions as to claims 14, 20, 22, 26, and 28. However, Yui and Koitabashi '185, individually or in combination, fail to teach or suggest each and every feature of amended claims 8, 14, 20, 22, 26, and 28.

The relevant portion of amended claim 8 recites, "...the melting point or decomposition point of the amine compound is 50°C or more...." Claims 14, 20, 22, 26, and

28 recite similar features as amended claim 8. Yui and Koitabashi '185, individually or in combination, fail to teach or suggest such an ink composition.

Koitabashi '185 teaches the use of water-soluble organic solvents including "alkanol amines such as monoethanol amine, diethanol amine, triethanol amine used independently or as a mixture." Koitabashi '185 paragraph [0090]. However, the amines disclosed in Koitabashi '185 all have melting or decomposition points that are below 50°C. Therefore, even if the teachings of Yui and Koitabashi '185 were combined, the combination would not yield the amine compound of the claimed invention. Thus, it would not have been obvious to one of ordinary skill in the art to have combined the teachings of Yui and Koitabashi '185 to arrive at the claimed invention.

Further, it would not have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Koitabashi '185 and Yui. Koitabashi '185 teaches, "water soluble organic solvents ... include ... alkanol amines such as monoethanol amine, diethanol amine, triethanol amine...." Koitabashi '185, paragraph [0090]. Conversely, Yui teaches, "The ink of the present invention may comprises [sic]... coloring material, ... water-soluble organic solvent, ... amine compound and the balance water" Yui, col. 2, lines 37-42. Therefore, Koitabashi '185 teaches that amine compounds can be used as a water-soluble organic solvent. Conversely, Yui teaches that the water-soluble organic solvent and the amine compound are distinct components of the ink. Consequently, one of ordinary skill in the art would not have been motivated to combine the amine compound taught by Koitabashi '185 and the ink jet ink of Yui because to do so, one would have to replace the water-soluble organic solvent as disclosed in Yui with the amine compound taught in Koitabashi '185, which would not yield the claimed invention. Applicant respectfully asserts that any combination of Yui and Koitabashi '185 that yields the claimed invention applies impermissible hindsight.

Furthermore, the claimed "content of the amine compound is in a range of 13 to 30%," would not have been rendered obvious by Yui and Koitabashi '185. The Office Action relies on Koitabashi '185 to disclose the claimed range; however, Koitabashi '185 merely discloses that the water-soluble organic solvent is more preferably between 5 and 40 %. The water-soluble organic solvent disclosed by Koitabashi '185 can be a mixture of a wide array of organic solvents, which may or may not include an amine compound. In addition, the Examples of Koitabashi '185 only include the amine compound from 0.1 to 2 %, which is well below the claimed range. See Koitabashi '185, paragraphs [0142]-[0205] (the amine compound is only present as 4 parts of the "pigment dispersion solution 2," which is present in inks from 2.5 parts to 50 parts). Therefore, Koitabashi '185 fails to disclose that an amine compound in the ink mixture should be from 5 to 40 %. Thus, Yui and Koitabashi '185, individually or in combination, fail to teach or suggest the claimed amine compound content.

For at least the reasons stated above, claims 8, 14, 20, 22, 26, and 28 would not have been rendered obvious by Yui and Koitabashi '185, individually or in combination. Claims 10, 31-35, 38-41 and 44-47 variously depend from claims 8, 14, 20, 22, 26, and 28 and, thus, also would not have been rendered obvious by Yui and Koitabashi '185. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Yui in view of Koitabashi '185 and further in view of Oki

The Office Action rejects claim 12 under 35 U.S.C. §103(a) as obvious over Yui in view of Koitabashi '185 and further in view of U.S. Patent Application Publication No. 2002/0050226 to Oki et al. (Oki). Applicant respectfully traverses the rejection.

For at least the reasons state above, Yui and Koitabashi '185, individually or in combination, fail to teach or suggest each and every feature of amended claim 8. Further, Oki is not applied to address the discrepancies of Yui and Koitabashi '185 as to claim 8.

Therefore, Yui, Koitabashi '185, and Oki, individually or in combination, fail to teach or suggest each and every feature of amended claim 8.

Claim 8 would not have been rendered obvious by Yui, Koitabashi '185, and Oki, individually or in combination. Claim 12 depends from claim 8 and, thus, also would not have been rendered obvious by Yui, Koitabashi '185, and Oki, individually or in combination. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Yui in view of Koitabashi '185 and further in view of Koitabashi '348

The Office Action rejects claims 17, 18, 24, 30, 36, 37, 42, 43, 48, and 49 under 35 U.S.C. §103(a) over Yui in view of Koitabashi '185 and further in view of U.S. Patent No. 6,471,348 to Koitabashi (Koitabashi '348). Applicant respectfully traverses the rejection.

Claims 17, 18, 24, and 30 contain features similar to the features of claim 8 discussed above. For at least the reasons state above, Yui and Koitabashi '185, individually or in combination, fail to teach or suggest each and every feature of amended claims 17, 18, 24, and 30. Further, Koitabashi '348 is not applied to address the discrepancies of Yui and Koitabashi '185 as to claims 17, 18, 24, and 30. Therefore, Yui, Koitabashi '185, and Koitabashi '348, individually or in combination, fail to teach or suggest each and every feature of amended claims 17, 18, 24, and 30.

Claims 17, 18, 24, and 30 would not have been rendered obvious by Yui, Koitabashi '185, and Koitabashi '348, individually or in combination. Claims 36, 37, 42, 43, 48, and 49 variously depend from claims 17, 18, 24, and 30 and, thus, also would not have been rendered obvious by Yui, Koitabashi '185, and Koitabashi '348, individually or in combination. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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